

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

~~April 28, 2022~~**Agenda ID #20574**
Ratesetting~~TO PARTIES OF RECORD IN RULEMAKING 18-07-017:~~

~~This is the proposed decision of Administrative Law Judge Manisha Lakhanpal. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's June 2, 2022 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.~~

~~Parties to the proceeding may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.~~

~~The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, *ex parte* communications are prohibited pursuant to Rule 8.2(c)(4).~~

/s/ ANNE E. SIMON
Anne E. Simon
Chief Administrative Law Judge

AES:nd3
Attachment

ALJ/ML2/nd3

PROPOSED DECISION Agenda ID #20574 **(Rev.1)**

Ratesetting
6/2/2022 Item #8

Decision **PROPOSED DECISION OF ALJ LAKHANPAL (Mailed 4/28/2022)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking
Regarding Continued Implementation
of the Public Utility Regulatory
Policies Act and Related Matters.

Rulemaking 18-07-017

**DECISION ADOPTING PROVISIONS IN THE NEW QUALIFYING
FACILITY STANDARD OFFER CONTRACT FOR STORAGE-PAIRED
PUBLIC UTILITY REGULATORY POLICIES ACT QUALIFYING FACILITIES**

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Attachment 1 - Southern California Edison Company's New Standard Offer Contract for Qualifying Facilities 20 Megawatts or Less

Attachment 2 - Pacific Gas and Electric Company's New Standard Offer Contract for Qualifying Facilities 20 Megawatts or Less

Attachment 3 - San Diego Gas & Electric Company's New Standard Offer Contract for Qualifying Facilities 20 Megawatts or Less

DECISION ADOPTING PROVISIONS IN THE NEW QUALIFYING FACILITY STANDARD OFFER CONTRACT FOR STORAGE-PAIRED PUBLIC UTILITY REGULATORY POLICIES ACT QUALIFYING FACILITIES

Summary

This decision addresses issues regarding Qualifying Facilities (QFs) that consist of small power production facilities paired with storage configurations (storage-paired QFs), consistent with the Public Utility Regulatory Policies Act of 1978 (PURPA).¹ The decision does the following:

1. Authorizes the Joint Investor-Owned Utilities (~~Joint~~ IOUs) to offer the New Qualifying Facilities Standard Offer Contract (New QF SOC) to storage-paired QFs that have self-certified as QFs or the Federal Energy Regulatory Commission has granted QF status;²
2. Authorizes the ~~Joint~~ IOUs to modify the New QF SOC to add their proposed Section 9.02(j) (Additional Covenants by Seller) and Section 9.04(i) (Indemnity) from their June 2020 advice letters for storage-paired QFs that exclusively charge from ~~the~~[onsite](#) eligible energy resources;³
3. Authorizes the IOUs to revise Section 9.02 and Exhibit U (Economic Dispatch Down) to include language necessary for storage-paired QFs when an IOU is the scheduling coordinator, to prevent deemed delivered energy payments for energy that is later delivered by a storage-paired QF to ensure that energy payments are only made once at avoided cost and no double-payments occur;

¹ PURPA is codified generally at 16 United States Code Sections 824a-3 and Section 2601. Various provisions appear elsewhere in the United States Code. The federal regulations implementing sections of PURPA are available at 18 Code of Federal Regulations (C.F.R.) Subchapter K starting at Part 292. QF means a small power production facility or a cogeneration facility that meets the criteria under Subpart B starting with Section 292.201 of these regulations 18 C.F.R. Section 292.101.

² The New QF SOC was adopted in Decision (D.) 20-05-006.

³ Pacific Gas and Electric Company Advice Letter (AL) 5853-E, Southern California Edison Company AL 4229-E, and San Diego Gas & Electric Company AL 3555-E.

4. ~~3.~~ Requires ~~investor-owned utilities (IOUs)~~ to submit a Tier 1 advice letter each within 15 days of issuance of this decision with a pro forma New QF SOC [with provisions required in 2 and 3 above](#), including a redline version comparing the new contract with the superseded prior contract;
5. ~~4.~~ Authorizes the IOUs to ~~bi-laterally~~[bilaterally](#) negotiate with storage- paired QFs charging from the grid while using the New QF SOC as the base contract and submit a Tier 2 advice letter for approval of the nonstandard contract. The negotiations are limited to modifying the New QF SOC's scheduling and metering provisions and revising or eliminating [provisions in](#) Section 9.02(j) and Section 9.04(i);
6. ~~5.~~ Clarifies that storage-paired QFs that include hybrid and co-located storage configurations with a combined nameplate capacity above 20 megawatts (MWs) are eligible for the New QF SOC as long as the net power production capacity is limited to 20 MW at the point of interconnection;
7. ~~6.~~ Defers to the Resource Adequacy Proceeding to define hybrid and co-located storage paired QFs considering the California Independent System Operator initiatives for market participation and operationalization of these resources. The definitions adopted in D.20-06-031 shall continue to apply; and
8. ~~7.~~ Declines to adopt any specific pricing mechanism for storage paired with QFs. The pricing options adopted in D.~~20-05-006~~[2005006](#) for capacity and energy remain unchanged.

1. Background

1.1. Procedural Background

On July 26, 2018, the California Public Utilities Commission (CPUC or Commission) opened this Order Instituting Rulemaking (OIR) to continue

implementation of the Public Utility Regulatory Policies Act of 1978 (PURPA)⁴ and related matters. Parties filed comments to the OIR on August 31, 2018, and September 12, 2018. Reply comments were filed on September 24, 2018.

On May 7, 2020, the CPUC issued Decision (D.) 20-05-006 adopting a New Qualifying Facility Standard Offer Contract (New QF SOC). The New QF SOC is available to any Qualifying Facility (QF)⁵ of 20 megawatts (MW) or less seeking to sell either energy or capacity or both to electric utilities under PURPA. D.20-05-006 left the proceeding open to further consider whether any action is required to comply with PURPA and future federal regulations.

On November 20, 2020, we issued Resolution (Res.) E-5104 approving the New QF SOC. Res. E-5104 also denied the three electric investor-owned utilities' (IOUs) requests to add language on energy storage to the New QF SOC and required a separate advice letter for any power purchase agreement with a QF paired with energy storage.⁶ The CPUC denied their requests because energy storage issues were not in scope for D.20-05-006, and General Order 96-B, General Rule 5.1, prohibits the IOUs from requesting modifications through the advice letter process.⁷

On January 11, 2021, we issued an Amended Scoping Memo and Ruling (Amended Scoping Memo or Ruling) seeking party comments on two issues:

⁴ See generally 16 U.S.C. § 824a-3 and 18 C.F.R. §§ 292.201, *et seq.*

⁵ PURPA defines QF at 18 C.F.R. § 292.101(b)(1) and QFs fall into two categories: qualifying small power production facilities (16 U.S.C. § 796(17)(C)) and qualifying cogeneration facilities (16 U.S.C. § 796(18)(B)). Unless distinguished in the decision, when used the term “qualifying facilities” will refer to both the categories.

⁶ See Pacific Gas and Electric Company's AL 5853-E, Southern California Edison Company's AL 4229-E, and San Diego Gas & Electric Company's AL 3555-E requesting approval of New WF SOC's, pursuant to D.20-05-006.

⁷ See Res. 5104-E, Findings 5, 7, and 9, at 26.

changes to avoided cost rates and matters related to QFs that include storage configurations (storage-paired QFs).

Comments on the Ruling were filed on February 10, 2021, by the California Wind Energy Association (CalWEA), Green Power Institute (GPI), Public Advocates Office at the California Public Utilities Commission (Cal Advocates), joint comments by Southern California Edison Company (SCE), Pacific Gas and Electric Company (PG&E), and San Diego Gas & Electric Company (SDG&E) (Joint IOUs) and jointly by Vote Solar, the Solar Energy Industries Association, and the California Energy Storage Alliance (Joint Parties).

1.2. Factual Background

In the advice letters filed by the IOUs pursuant to D.20-05-006, the IOUs included the new standard offer contract (New Pro Forma Under 20 Megawatts PURPA Contract) with two additional provisions applicable to energy storage-paired QFs, including any hybrid or co-located energy storage resource configurations associated with the QF: ⁸

- Section 9.02(j): Throughout the Term, Seller shall not cause any energy from the Transmission Provider's electrical system or the California Independent System Operator (CAISO) Controlled Grid to be stored by the Project or any hybrid ~~or~~for co-located storage facility associated with the Project.
- Section 9.04(i): Seller shall defend, save harmless, and indemnify Buyer against any costs or charges, including any CAISO Charges, associated with withdrawals of energy from the Transmission Provider's electrical system or the CAISO Controlled Grid to be stored by the Project or any hybrid or co-located storage facility associated with the Project.

⁸ PG&E AL 5853-E, SCE AL 4229-E, and SDG&E AL 3555-E.

Additionally, SCE and PG&E proposed by advice letter that if an energy storage-paired QF requested to sign the New QF SOC, that the submission of a Tier 2 advice letter with mutually negotiated and a modified New QF SOC to address storage issues should be required.⁹ In replies to protests received on their advice letters, the IOUs conceded that D.20-05-006 did not contemplate energy storage.¹⁰ This decision expressly considers the applicability of the New QF SOC for storage-paired QFs.

1.3. PURPA Background

PURPA entitles a QF, a generation facility that meets specific federal eligibility requirements, to sell its power to a utility at the utility's avoided cost.¹¹ PURPA rules generally require that a generation facility self-certify as a QF or apply for and obtain FERC certification of QF status.¹² The federal regulations implementing PURPA require that the primary energy source of a small power production facility must be biomass, waste, renewable resources, geothermal resources, or any combination thereof,¹³ and the power production capacity of a QF cannot exceed 80 MW.¹⁴ Although PURPA requires states to oversee regulated utilities' procurement of QF generation consistent with federal law,

⁹ PG&E AL 5853-E at 3, SCE AL 4229-E at 4.

¹⁰ Reply of PG&E to Protests on AL 5853-E (July 13, 2020); Reply of SCE to Protests and Responses on AL 4229-E.

¹¹ See *generally* 18 C.F.R. § 292.203(a) (2020) (citing 18 C.F.R. § 292.204(a) (size limit) and § 292.204(b) (fuel use)). Qualifying Facility is defined at 18 C.F.R. § 292.101(b)(1).

¹² 18 C.F.R. § 292.207(a) (self-certification) and § 292.207(b) (application for FERC certification); see *also* FERC Form No. 556.

¹³ 18 C.F.R. § 292.204(b).

¹⁴ 18 C.F.R. § 292.204(a)(1). In California, FERC has authorized termination of the mandatory purchase obligations of the IOUs pursuant to Section 292.210 of PURPA for QFs with a net capacity in excess of 20 MW. See Order Granting Application to Terminate Purchase Obligation, 135 F.E.R.C. ¶ 61,234, paragraph 2 (2011).

FERC alone determines what generators are QFs under federal law's definitions and criteria.¹⁵

While PURPA does not explicitly state that a storage facility can qualify for QF status, FERC has interpreted PURPA to determine that a small power production facility with storage is eligible to be a QF if its primary energy source is an approved renewable energy resource. In 1990, FERC determined that an energy storage facility, such as a battery system, could be a renewable resource for purposes of QF certification.¹⁶ Although Luz argued FERC's fuel standard, or "fuel source rule" did not apply, as ~~the~~ FERC laid out in *Luz*, to be a QF, energy storage facilities are subject to the requirement that the energy input to the facility is itself biomass, waste, a renewable resource, a geothermal resource, or any combination thereof or a demonstration that any fossil fuel-~~fire~~fired input constitutes no more than 25 percent of the total energy input to the facility and such uses are consistent with those enumerated in section 3(17)(B) of the [Federal Power Act].¹⁷

More recently, in considering a solar and battery storage facility in Montana, FERC reiterated that to be a QF, "a small power production facility must comply with the fuel use and size criteria" specified in FERC's PURPA

¹⁵ See *FERC v. Miss.*, 456 U.S. 742, 767 (1982) (PURPA is a "program of cooperative federalism that allows the States, within limits established by federal minimum standards, to enact and administer their own regulatory programs, structured to meet their own particular needs"). See also 16 U.S.C. § 824a-3(l) and 18 C.F.R. § 292.203 (federal laws definitions and criteria for QFs).

¹⁶ *Luz Dvlpt. & Finance Co.*, 51 F.E.R.C. ¶ 61,078, at 61,172 (1990) (*Luz*).

¹⁷ *Id.* at 61.171-61.172 (finding that Section 292.204(b) of the regulations requires that these primary energy sources of a small power production facility must constitute 75 percent or more of the total energy input of a small power production facility and requiring that the use of oil, natural gas or coal by such a facility may not constitute more than 25 percent of the total energy input and that such uses be consistent with federal law. ~~The~~ FERC denied Luz's application for QF status for its proposed battery system because the applicant "has not attempted to show that the proposed facility will meet any of these requirements.").

regulations.¹⁸ On September 1, 2020, FERC issued an order denying Broadview Solar, LLC's (Broadview Solar's)¹⁹ proposed solar photovoltaic (PV) and battery storage facility status as a QF.²⁰ However, on March 19, 2021, FERC reversed its earlier decision and issued the Broadview Rehearing Order certifying Broadview Solar as a QF.²¹ Although the subcomponents of the Broadview Solar facility have a nameplate capacity that exceeds the 80 MW threshold under PURPA, FERC reasoned that Broadview Solar's facility "is physically incapable of producing more than 80 MW for sale to the interconnected electric utility at any one point in time", thus meeting the size criteria allowing it to qualify for QF status.²² In the Rehearing Order, FERC clarifies that the best interpretation of a facility's power production capacity is "the amount of power that a facility is capable of safely and reliably sending to the interconnecting utility."²³ On reconsideration, FERC finds that Broadview's facility is a QF because it meets the longstanding send out analysis to measure power production capacity.²⁴

¹⁸ *Broadview Solar, LLC*, Order Addressing Arguments Raised on Rehearing and Setting Aside Prior Order, 174 F.E.R.C. ¶ 61,199 at 4 (2021) (Broadview Rehearing Order).

¹⁹ Broadview Solar is developing a facility that "will include a coupled array of solar PV panels with a gross capacity of 160 MW of direct current (DC) electricity and a battery energy storage system with the capacity to discharge 50 MW of DC electricity for up to 4 hours (*i.e.*, a total of 200 MW-hours (MWh))." The panels and battery connect to inverters that convert DC electricity to alternating current (AC) electricity, which is necessary because "without the inverters the power is not in a form that can be transmitted to the grid. Taking the inverters maximum output and deducting the facility's load and losses, the maximum net output to the electric grid "will be 80 MW." *Id.* at 5 and footnote 14.

²⁰ *Broadview Solar, LLC*, 172 F.E.R.C. ¶ 61,194 (2020) (Broadview).

²¹ *Broadview Solar, LLC*, 174 ~~FERC~~[F.E.R.C.](#) ¶ 61,199 (2021) (Broadview Rehearing Order).

²² Broadview Rehearing Order at 23.

²³ *Id.* at 27, citing *Occidental Geothermal, Inc.*, 17 F.E.R.C. ¶ 61,231 (1981) (*Occidental*). Since *Occidental*, FERC determines a facility's power production capacity by looking at the facility's maximum net output or send out. See Broadview Rehearing Order at 7, citing *Malacha Power Project, Inc.*, 41 F.E.R.C. ¶ 61,350 (1987); *Am. Ref-Fuel Co. of Bergen Cty.*, 54 F.E.R.C. ¶ 61,287 (1991).

²⁴ See Broadview Rehearing Order at 32. FERC's orders on Broadview Solar's solar and storage facility's eligibility as a QF have been appealed. See *Edison Electric Institute v. FERC*, D.C. Cir.

On December 17, 2021, FERC issued an order for another solar and storage-paired facility confirming its self-certified status as a QF and finding that the amount of energy the facility may provide to the grid is limited not to exceed the maximum net power production capacity allowable under PURPA.²⁵

2. Issues Before the CPUC

The Amended Scoping Memo listed the following issues about QFs paired with storage for Commission's consideration:

1. Does the current QF SOC allow for hybrid and co-located storage project eligibility without expressly including energy storage as an eligible technology?
2. Should QFs be prohibited from charging co-located storage with grid power and discharging under a QF SOC? If so, what proposed language would need to be included in the QF SOC?
3. Are other storage-specific provisions necessary in the QF SOC for hybrid and co-located storage project eligibility?
4. Should hybrid and co-located storage projects with a combined nameplate capacity above 20 MW be eligible for the QF SOC? If so, what additional language is necessary to limit a QF's output to 20 MW at any given time if the generator's nameplate capacity plus storage capacity exceeds 20 MW?
5. How should we define co-located and hybrid energy storage resources in light of recent and future developments in the CAISO Hybrid Resource Initiative?
6. How do co-located and hybrid energy storage impact the pricing under the QF SOC? Are there any additional

facility's eligibility as a QF have been appealed. *See Edison Electric Institute v. FERC*, D.C. Cir. Case No. 20-1142 (consolidated with Case Nos. 21-1126, 21-1136, and 21-1149).

²⁵ *Gallatin Power Partners, LLC*, 177 F.E.R.C. ¶ 61,181 (2021) (*Gallatin Power*) at 7, *aff'd*, Notice of Denial of Rehearing by Operation of Law, 178 F.E.R.C. ¶ 62,088 (2022). Gallatin's Shields Valley facility in Montana will have a total DC nameplate capacity of 160 MW and a battery storage system with an expected capacity of 80 MW of DC, but the facility will include inverters that result in a maximum net AC power production capacity of 80 MW. (*See Gallatin Power* at 2.)

pricing clarifications or modifications necessary in the QF SOC to accommodate energy storage?

3. Discussion

Today's decision focuses on issues related to QFs paired with storage. We have reviewed the arguments made by the parties and considered all the evidence and issues that parties have raised in deciding rules for storage paired with QFs. We focused our attention on the significant points presented by each party and did not try to summarize every nuance of the parties' positions. The comments of CalWEA focused solely on the Amended Scoping Memo's first question that we are not addressing in this decision, and therefore the comments of CalWEA will not be addressed herein.

For reference we have attached the effective New QF SOC's of each IOU in Attachment 1-3.

3.1. Storage-paired QFs Are Eligible for the New QF SOC

The Amended Scoping Memo asked whether the New QF SOC allows for hybrid and co-located storage project eligibility.

The New QF SOC shall allow eligibility for a storage-paired QF. Self-certification as a QF or certification by FERC of QF status shall remain a prerequisite for a QF to obtain the New QF SOC. Under Section 2.01(a) of existing New QF SOC's, before the contract term start date, a Seller must satisfy that it is a QF.

The Joint Parties note that solar thermal QFs with storage have existed since 1984 and that PURPA does not prohibit QFs from including energy storage technology.²⁶ The Joint Parties contend that nothing in PURPA or any FERC

²⁶ See Comments filed by Joint Parties on February 10, 2021 (Joint Parties Comments) at 4.

order prohibits QFs from including energy storage technology.²⁷ We agree with the Joint Parties that FERC may permit the inclusion of a storage device charging from a qualifying renewable resource under the current federal law.²⁸ FERC precedent described in Section 1.3 above, such as *Broadview Solar* and *Gallatin Power* demonstrates that storage-paired facilities can be QFs under federal law and thus eligible for the benefits of PURPA, namely a contract to sell power to a utility at an avoided-cost rate.²⁹

We agree with the Joint Parties, the Joint IOUs, and the Cal Advocates that FERC has the exclusive authority to make QF status determinations.³⁰

At the time of filing comments, Cal Advocates and the Joint IOUs noted that the QF status of hybrid and co-located energy storage is unsettled and under consideration at FERC.³¹ Beyond the Joint Parties comments, as explained above, FERC has determined in its rehearing order on *Broadview Solar* and in *Gallatin Power* that storage paired small power production facilities are QFs. Therefore, since FERC has found facilities paired with storage to be QFs, we find Cal Advocates and the Joint IOU comments on the unresolved state of QF status at FERC to now be resolved. We issued an amended scoping memo in this proceeding to clarify the issue of QF generation paired with storage to ensure PURPA compliance. With the party comments filed on the amended scoping

²⁷ See Joint Parties Comments at 4-5.

²⁸ See Joint Parties Comments at 3.

²⁹ See Broadview Rehearing Order at 26.

³⁰ See Joint Parties Comments at 4 citing *Franklin Energy v. Idaho Power Co.*, U.S. Dist. Ct. Idaho ([Franklin Energy Storage One, LLC v. Kjellander](#), 2020 U.S. Dist. LEXIS 8892, 2020 WL 265278); comments filed by the Joint IOUs on February 10, 2021 (Joint IOUs Comments) at 3; and comments filed by Cal Advocates on February 10, 2021 (Cal Advocates Comments) at 3, citing *Independent Energy Producers Ass'n, Inc. v. CPUC*, 36 F.3d 848, 859 (1994).

³¹ See Cal Advocates Comments at 3.

memo, we do not need a briefing schedule on matters related to storage paired with QFs as suggested by the Cal Advocates.³²

The Joint IOUs want the CPUC to clarify that the New QF SOC shall only be offered to a QF that has completed its FERC certification and has no outstanding protests to such certification. They further state that ~~the~~ FERC has exclusive jurisdiction over QF certification. The Joint IOUs recommend only offering the New QF SOC to facilities certified by FERC as a logical rule for all QFs. The Joint IOUs state that a QF must demonstrate commercial viability (under FERC Order 872) and financial commitment pursuant to criteria determined by the state regulatory authority as a prerequisite to a QF obtaining a legally enforceable obligation.³³ We decline to adopt the Joint IOUs recommendation that CPUC should set new viability and financial commitment criteria as a prerequisite to obtaining a PURPA contract because it is outside of the scope of this decision. We reiterate that terms already in the New QF SOC provide the obligations a Seller must satisfy to demonstrate that it is a QF.³⁴

Cal Advocates states that the New QF SOC does not allow for “hybrid and co-located energy storage facilities.” GPI also states that by not allowing the IOUs’ two proposed provisions in Res. E-5104, the CPUC expressly disallowed hybrid or co-located storage project eligibility.³⁵ The proposed language in the advice letters by the IOUs in 2020 was outside of the scope of D.20-05-006. Since then, we have revised the scope of this proceeding and are now acting to

³² *Id.*

³³ See Joint IOUs Comments at 3-4.

³⁴ 18 C.F.R. § 292.304(d)(3); see New QF SOC term Section 2.01(a) and Section 3.17, and the definition of Qualifying Facility in Exhibit A, *Definitions*.

³⁵ See comments filed by GPI on February 10, 2021 (GPI Comments) at 3-4.

expressly allow, consistent with federal law, storage-paired QFs to enter into a PURPA contract.

This proceeding aims to ensure PURPA compliance, so we reiterate that to the extent a facility is a QF, it must be eligible for the New QF SOC.

We will discuss the terms and provisions to allow for QFs paired with storage to avail themselves of the New QF SOC in the following Sections 3.2-3.6 below.

3.2. Hybrid and Co-Located Storage QF Configurations Can Charge From the Grid

The amended scoping memo asked whether QFs should be prohibited from charging co-located storage with grid power and discharging that power under the New QF SOC.

Under PURPA, the New QF SOC shall be available to QFs, including small power production facilities where the primary energy source of the facility is biomass, waste, renewable resources, geothermal resources, or any combination thereof, and 75 percent or more of the total energy input must be from these sources [and such uses are consistent with federal law](#).³⁶ Section 3.17(b) of the New QF SOC addresses the fuel source rule pursuant to 18 ~~CFR~~[C.F.R.](#) Part 292, Section 292.204. Furthermore, pursuant to FERC's determination in *Luz*, energy storage facilities are subject to the same fuel use limitations as all other small power production facilities.³⁷

Prohibiting grid charging may not be technically or practically feasible for storage-paired QFs. We should allow some flexibility, as described below, to negotiate additional terms and provisions in a power purchase agreement to

³⁶ D.20-05-006 at Ordering Paragraph (OP) 11; 18 C.F.R. § 292.204(b)(4).

³⁷ [51 F.E.R.C.](#) ¶ 61,078 at [61,170](#).

address unique configurations of a QF partly charging from the grid if such a configuration is allowed by FERC to qualify as a QF. The utility shall include such nonstandard agreements in a Tier 2 advice letter for CPUC's approval.

Comments filed by the Joint Parties note that storage in facilities powered by solar or wind has become ubiquitous.³⁸ They further state that as of December 16, 2020, fifty-one percent of the capacity in the CAISO interconnection queue are solar hybrids and five percent of the capacity in the queue are wind-storage hybrids.³⁹ We find merit in the Joint Parties' comments that PURPA has been and should continue to be an essential policy instrument to ensure the cost-effective future development of smaller renewable energy and storage projects needed as part of an increasingly more distributed, low carbon, and resilient electric system. Joint Parties' comments also refer to the complexities of metering and verifying minimum fuel-use requirements when grid charging is allowed.⁴⁰ Regarding the New QF SOC language, we agree with the Joint Parties that for storage-paired QFs charging exclusively from the onsite eligible generation, the language initially proposed by the IOUs in Section 9.02(j) and Section 9.04(i) would be helpful.⁴¹

The Joint IOUs contend that the New QF SOC be available only to energy storage-paired QFs that charge solely from renewable resources. They further state that if energy storage paired QF designed to charge from the grid partially is certified by FERC and is eligible for a QF contract, the Joint IOUs should be

³⁸ See Joint Parties Comments at 2.

³⁹ *Id.*

⁴⁰ See Joint Parties Comments at 5.

⁴¹ *Id.*

allowed to file a Tier 2 advice letter for CPUC's approval of its negotiated revisions to the New QF SOC to address the specific circumstances of that QF.⁴²

We find it reasonable to use a revised New QF SOC, including the IOUs' proposed language for Section 9.02(j) and Section 9.04(i) when contracting with storage-paired QFs that charge solely from eligible onsite resources reasonable, and no other additional terms are necessary. The Joint IOU proposal to submit a Tier 2 Advice Letter for contracts that may include certain negotiated terms is reasonable only in instances where it allows parties to achieve a PURPA power purchase agreement that appropriately addresses and negotiates the contractual issues raised by a partially-grid charged energy storage system.

The Joint IOUs state that New QF SOC prohibits eligible QFs from charging from the grid.⁴³ The Joint IOUs argue that in Section 9.03 of the existing New QF SOC and the QF Settlement SOC (negotiated in 2009-2010 and forms the basis of the New QF SOC), both require that any small power production (*i.e.*, renewable) QF not only be a QF but also qualify and be certified by the California Energy Commission as an Eligible Renewable Energy Resource (ERR) as defined under Public Utilities Code Section 399.12.⁴⁴ We remind the Joint IOUs that the eligible renewable resources language is Renewables Portfolio Standard program language. It does not control the contract language here where this proceeding is about ensuring compliance with PURPA, a federal law for the sale of wholesale power. The scenario stated by the Joint IOUs may be applicable wherein generation from a QF will also be used for compliance in the RPS program, but not every PURPA contract is an RPS eligible contract. We do not

⁴² See Joint IOU Comments at 4-5.

⁴³ See Joint IOU Comments at 4.

⁴⁴ *Id.*; Section 9.03 of the SOC refers to Additional Representations, Warranties, and Covenants Applicable to Renewable Small Power Production Facilities.

approve a contract term that requires a QF to certify as an ERR to participate in the PURPA program.

FERC determines fuel use rules, and we agree with the Cal Advocates that if the QF cannot meet the 75 percent qualifying fuel requirement, it should be prohibited from selling energy pursuant to a PURPA contract.⁴⁵ Following the precedent of *Luz*, we do not expect that such a facility could be a QF under federal law but whether or not a generator is a QF is a question for FERC. Cal Advocates states that additional control systems or operational constraints on charging would be necessary to ensure that charging of the energy storage does not occur in excess of the onsite generation.⁴⁶ Cal Advocates further states that under CAISO rules, prohibiting grid charging may not be technically or practically feasible for a co-located system that provides ancillary services to the grid. Cal Advocates states that CAISO has independent control of energy storage through a separate CAISO resource identification (Resource ID) for co-located systems, and it could direct the storage resource to charge from the grid to maintain the minimum state of charge requirement if there is not sufficient onsite generation to do so.⁴⁷ Cal Advocates did not propose language to include in the QF SOC, and we find that no additional terms beyond those authorized above are necessary for a storage-paired QF that will charge only from the paired generation.

⁴⁵ See Cal Advocates Comments at 4.

⁴⁶ *Id.*

⁴⁷ See Cal Advocates Comments at 4-5.

3.3. Adopting Storage-Specific Provisions and Specific Terms and Conditions for the New QF SOC

The amended scoping memo asked whether other storage-specific provisions are necessary in the QF SOC for hybrid and co-located storage project eligibility.

We recognize the concern about grid charging highlighted by the parties. It is reasonable to offer two options to allow greater and easier market participation for storage-paired QFs.

Option I for Storage-Paired QFs Charging Solely from the Onsite

Eligible Paired Generation: Under the first option, as discussed in Section 3.2 of this decision, we adopt two additional sections for the New QF SOC applicable to energy storage-paired QFs that solely charge from the onsite eligible paired generation. The New QF SOC shall add Section 9.02(j) as a Seller covenant that it will not cause energy from the CAISO-controlled grid to be stored by the Project and Section 9.04(i) that will require Sellers to indemnify Buyer for any costs related to withdrawals of energy from the CAISO-controlled grid.

The revised New QF SOC shall include the two additional provisions proposed by the IOUs for storage-paired QFs that will solely charge from the renewable resource. Thus, the New QF SOC shall include the following language:

- **Section 9.02(j):** Throughout the Term, Seller shall not cause any energy from the Transmission Provider's electrical system or the CAISO Controlled Grid to be stored by the Project or any hybrid or co-located storage facility associated with the Project.
- **Section 9.04(i):** Seller shall defend, save harmless, and indemnify Buyer against any cost or charges, including any CAISO Charges, associated with withdrawals of energy from the Transmission Provider's electrical system or the

CAISO Controlled Grid to be stored by the Project or any hybrid or co-located storage facility associated with the Project.

Within 15 days of the issuance of this decision, the three IOUs shall submit a Tier 1 Advice Letter each with their revised New QF SOC, including a redline version comparing the new contract with the superseded prior contract. We continue to not require advice letter filings from the IOUs each time they sign a power purchase contract using the revised New QF SOC.

Option II for Storage-Paired QFs Charging From the Grid: Regarding storage-paired QFs charging from the grid, the Joint IOUs propose bilaterally negotiating additional terms to their power purchase agreement to address storage-paired QF configuration. The Joint IOUs propose a list of provisions that may vary between contracts, such as RPS accounting, treatment of pricing for discharged power from the grid, metering, scheduling obligations, variable energy resource forecasts requirements, and state of charge provisions. The Joint IOUs further state that additional contract terms may be necessary to accommodate CAISO' scheduling requirements but do not provide supporting information. The Joint IOUs propose to submit a nonstandard contract via a Tier 2 Advice Letter for CPUC approval.

Among the additional provisions listed by the Joint IOUs, we find it reasonable to allow negotiations on provisions addressing metering and scheduling obligations. Scheduling obligations are outlined in Section 2.01, and metering provisions are listed under Section 3.08 of the New QF SOC. Moreover, storage adds discharge capabilities that may need to be addressed in the scheduling provisions. Additionally, storage-paired QF configurations may require negotiations of metering provisions to ensure compliance with energy output requirements.

However, the remaining provisions of the New QF SOC do not need further modifications for storage-paired QFs charging from the grid. For example, the existing forecasting requirement terms in the New QF SOC already account for a project's generation technology and organizational structure, eliminating the need to negotiate variable energy resource forecasts further to create a storage-specific QF SOC for storage-paired QFs charging from the grid. The New QF SOC also provides flexibility on RPS accounting for facilities that are non-RPS; therefore, no additional provisions are required to negotiate this specific term for storage-paired QF charging from the grid. Regarding negotiating pricing treatment for a storage-paired QF's discharged power from the grid, the price of power from a QF is not resource specific. Under PURPA the purchasing utility pays the avoided cost, which factors in the energy available from at a certain location to fairly compensate the QF. Therefore, we do not authorize negotiating these provisions for storage-paired QFs charging from the grid.

In conclusion, for storage-paired QF charging from the grid, we authorize the IOUs to enter into bilateral agreements to negotiate and modify metering and scheduling provisions of the New QF SOC. Since these small production facilities are configured differently than storage-paired QFs not charging from the grid, it is also suitable for the nonstandard contract to remove Section 9.02(j) and Section 9.04(i). The IOU entering the modified contract shall submit the nonstandard contract for CPUC approval through a Tier 2 Advice Letter.

Other Provisions: Cal Advocates states that hybrid and co-located energy storage facilities that charge from the grid could exceed 25 percent of charging

energy input from fossil resources, which is inconsistent with PURPA.⁴⁸ Cal Advocates proposes using ex-post metrics based upon CAISO settlement data for monitoring and verification to prevent this. However, such a metric would only be for monitoring purposes. We do not require this because a QF must comply with the fuel use criteria specified in the PURPA rules or have a FERC order waiving the operating and fuel use standards, and the existing SOC terms discussed above are adequate to ensure this.⁴⁹

We decline to adopt GPI's recommendation on adopting provisions related to Rule 21 of the Commission's Rules of Practice and Procedure, wholesale, and CAISO tariffs because they are not necessary to implement this decision.⁵⁰

GPI states that a revenue meter is needed to track two-way power flows.⁵¹ It further states that energy storage should be able to charge from the grid if desired but that power should not be sent back to the grid for compensation under the SOC.⁵² GPI did not propose any specific language needed in the QF SOC. GPI's position ignores that federal law determines what type of generation facility is a QF, including the fuel source rule and FERC's ability to waive that rule. As explained above, the existing SOC requirement for QF certification is sufficient to address this.

The Joint Parties do not offer recommendations on the issue of whether storage-specific provisions are necessary for the QF SOC for hybrid and co-located storage project eligibility. Instead, they recommend expanding the

⁴⁸ See Cal Advocates Comments at 5.

⁴⁹ New QF SOC Section 3.17.

⁵⁰ See GPI Comments at 4.

⁵¹ *Id.*

⁵² *Id.*

scope of the proceeding to consider the opportunity to pair new qualifying renewable energy facilities with existing standalone storage projects and discuss how resource adequacy capacity payments and counting applies to hybrid and co-located projects. We decline to adopt the Joint Parties recommendation at this time because no federal regulations have changed that require the Commission to address these issues to ensure compliance with PURPA.

**3.4. Hybrid and Co-Located Storage Projects
With a Combined Nameplate Capacity Above
20 MW Are Eligible for the New QF SOC as
Long as They Meet the Federal Requirements
of Net Power Production Capacity at the Point
of Interconnection**

The fifth question in the amended scoping memo asked if a hybrid and co-located facility with a nameplate capacity greater than 20 MW should be eligible for the New QF SOC, and parties were also asked to recommend additional language in case the output exceeded the 20 MW limit.

As explained above in Section 1.3, with FERC's order in *Gallatin Power* and its *Broadview Solar* rehearing order, FERC has determined that an eligible generating facility paired with storage that limits the net power production capacity at the point of interconnection to the mandatory purchase obligation is a QF.⁵³

The Joint Parties state that if the project point of interconnection is limited to 20 MW, then the amount of power that can be exported at any interval will not exceed 20 MW.⁵⁴ They further state that the additive capacity of the QF generator and storage components is not relevant in this context where standard

⁵³ FERC has authorized termination of the mandatory purchase obligations of PG&E, SDG&E, and SoCal Edison pursuant to Section 210(m)(1)(C) of PURPA for QFs with a net capacity in excess of 20 MW. 135 F.E.R.C. ¶ 61,234 (2011).

⁵⁴ See Joint Parties Comments at 6.

offer contract eligibility is tied to the nameplate capacity of the QF generator being 20 MW or less, where storage merely shifts energy deliveries to different times of the day.⁵⁵ The Joint Parties argue that so long as the fuel-use requirements are met for energy storage resources paired with QF generators, size limitations for the storage component may not be necessary.

Cal Advocates states that a hybrid system larger than 20 MW could qualify as QFs provided they have interconnection limits of 20 MW.⁵⁶ Cal Advocates argue that upon inclusion of hybrid and co-located energy storage facilities as QFs, co-located resources with a combined CAISO Master File⁵⁷ capacity under 20 MW, or an Aggregate Capability Constraint⁵⁸ limited to 20 MW, may be eligible for QF status.⁵⁹ They further argue that the combined CAISO Master File capacity or the Aggregated Capability Constraint will reflect the CAISO interconnection limit for the resource to ensure that generation export to the grid is limited to an instantaneous 20 MW.⁶⁰

We agree with the Joint Parties and Cal Advocates that the nameplate capacity of components of the QF is not relevant to the 20 MW cap on the overall project capacity. As long as the generator paired with storage is a QF under

⁵⁵ *Id.*

⁵⁶ See Cal Advocates Comments at 7.

⁵⁷ The CAISO Master File contains static data that reflects the operating characteristics of resources that participate in California ISO markets. California ISO Business Practice Manual for Definitions and Acronyms at 70.

⁵⁸ The Aggregate Capability Constraint limits the simultaneous grid export of energy and ancillary services from two or more resources. California Independent System Operator Hybrid Resources Final Proposal, October 5, 2020 at 14.

⁵⁹ Cal Advocates Comments at 7.

⁶⁰ *Id.*

federal law, which limits the net power production capacity at the point of interconnection to 20 MW, it should be allowed to enter into a New QF SOC.

The Joint IOUs state that they currently have no obligation to purchase from QFs greater than 20 MW.⁶¹ FERC has relieved the IOUs from the PURPA requirement to enter into new commitments or contracts to purchase electric energy and capacity from QFs with *net capacity* above 20 MW on a service territory-wide basis for the IOUs under the control of CAISO. FERC did not authorize limiting power purchase agreements based on the gross production capacity of the QF. The Joint IOUs' argument that how FERC measures maximum net power production capacity is in flux given the appeal of FERC's initial ruling on this subject (Broadview Solar Order) is now resolved as FERC granted Broadview Solar, with a gross capacity higher than the net production capacity of 80 MW limit, a QF status. Correspondingly, we do not see a reason to deny approval for a QF with a nameplate capacity higher than 20 MW⁷ to enter into a contract for a New QF SOC or a bi-lateral contract if charging from the grid when the net capacity at the point of interconnection is limited to 20 MW.

GPI supports that facilities with a nameplate capacity above 20 MW should be eligible for the New QF SOC. GPI further states that the 20 MW limit should be a real-time limit and an annual limit. GPI recommends language: "Applicants may not exceed 105% of 20 MW discharged hourly to the grid for compensation and may not exceed 100% of the maximum contracted capacity on an annual average." While FERC sets the wholesale price of power for any facility other than a QF, what GPI is asking for would allow facilities with 105 percent of the cap to inject power at the point of interconnection, which is more than the must-purchase obligation of 20 MW. According to GPI, such a facility would

⁶¹ Joint IOU Comments at 13.

discharge electricity on an hourly basis under the New QF SOC so long as, over the course of a year, they average out to only supplying 20 MW at a time. We find no basis in law for this approach, and FERC hasn't been confronted with this scenario. According to FERC, a QF is a facility paired with storage that is physically prevented from supplying more than the must-purchase obligation to the grid.⁶² In GPI's scenario, the facility could be supplying more than 105 percent of the cap. Because such a facility is likely not a QF under federal law, the CPUC cannot set the price under PURPA for such a sale or allow the use of the New QF SOC for a facility providing power above the must-purchase obligation.⁶³ The New QF SOC adopted in D.20-05-006 remains available only to QFs of 20 MW or less.⁶⁴

Regarding language to limit the QF's output to 20 MW- we do not see a need for additional language in the New QF SOC. Under FERC's existing rules for a QF in California, a generation facility's net power production capacity may not exceed 20 MW at the point of interconnection.⁶⁵

3.5. Definitions of Hybrid and Co-Located Storage Resources Adopted In the Resource Adequacy Proceeding Shall Continue to Apply

The sixth question in the amended scoping memo asked the parties to comment on how we should define the hybrid and co-located resources in light of the CAISO's Hybrid Resource Initiative.

⁶² See Broadview Rehearing Order at 40.

⁶³ See, e.g., paragraph 64-67 of 132 F.E.R.C. 61,047 (2010) for discussion on FERC's exclusive jurisdiction and state's limited opportunity to set wholesale rates under PURPA.

⁶⁴ D.20-05-006 OP 11.

⁶⁵ 135 F.E.R.C. ¶ 61,234 (2011).

In D.20-06-031, we defined a “hybrid resource” as two or more resources (one of which is a storage project) located at a single point of interconnection with a single resource ID, and “Co-located resources” as two or more resources (one of which is a storage project) located at a single point of interconnection with two or more resource IDs.⁶⁶

The CAISO tariff has its own definition of hybrid and co-located resources.⁶⁷ CAISO differentiates between co-located and hybrid resources in that co-located resources operate in the CAISO’s markets as separate and independent resources.⁶⁸ Co-located resources are located at the same generating facility from an interconnection perspective, but the CAISO treats them as separate market resources with separate Resource IDs.⁶⁹ On the other hand, a hybrid resource receives one dispatch instruction from the CAISO.⁷⁰ The hybrid resource operator self-optimizes the components of its resource to meet that dispatch instruction. The CAISO settles the aggregate output of each hybrid resource under its single Resource ID.

Cal Advocates and the Joint IOUs recommend that definitions of hybrid and co-located resources should be consistent with CAISO definitions.⁷¹

⁶⁶ See Resource Adequacy Proceeding (Rulemaking 19-11-009), D.20-06-031 OP 12.

⁶⁷ See *California Independent System Operator Corp.*, Order Accepting Tariff Revisions, 177 F.E.R.C. ¶ 61,153 (Nov. 30, 2021) (approving revisions to the CAISO Open Access Transmission Tariff to clarify market rules for hybrid and co-located resources).

⁶⁸ 177 F.E.R.C. ¶ 61,153, footnote 3.

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ See Cal Advocates Comments at 7 and Joint IOUs Comments at 15.

The Joint IOUs are reasonable in stating that FERC rules will determine how capacity size for co-located/ hybrid resources is measured.⁷² The Joint IOUs further state that FERC has discretion as to whether affiliated QFs within a ten-mile radius of one another will have their certified capacities combined when applying the threshold for compelled purchases is reasonable.⁷³

Additionally, the Joint IOUs state the differences between CPUC's and CAISO's definition of these resources, such that it requires one of the resources to be an energy storage component under the CPUC's definition. The Joint IOUs state that the CPUC's definition of a co-located resource may be challenging to implement contractually, as the New QF SOC is based on the purchase of generation from one resource with one resource ID.⁷⁴ They further state that given the evolving definitions of this nascent resource type, the CPUC will need to revisit definitions from time to time.⁷⁵ The Joint IOUs recommend that the CPUC review the definitions in the Resource Adequacy proceeding but not in the PURPA proceeding to align them with the CAISO's definitions.⁷⁶ We agree with the Joint IOUs that we should not adopt new definitions in this proceeding as it will result in two distinct categories: (1) definitions used only in the context of PURPA, and (2) definitions used in all other contexts.

Furthermore, we agree with the Joint Parties that defining hybrid and co-located resources is relevant for market participation and operationalization

⁷² See Joint IOU Comments at 14.

⁷³ *Id.*

⁷⁴ See Joint IOUs Comments at 16.

⁷⁵ *Id.*

⁷⁶ *Id.*

considerations that should not impact the PURPA contracting for hybrid and co-located projects.⁷⁷

In conclusion, we defer to the Resource Adequacy Proceeding to define hybrid and co-located resources considering relevant CAISO initiatives. The definitions adopted in D.20-06-031 shall continue to apply.

3.6. No Additional Pricing Clarifications or Modifications Are Necessary for Storage-Paired QFs

We asked the parties to comment on how hybrid and co-located storage technology impacts the pricing and if any modifications were necessary.

Under California's New QF SOC, the purchasing utility pays the locational marginal price that reflects the avoided cost of energy.

The New QF SOC for storage paired with small production facilities charging solely from renewable energy resources shall rely on the current pricing mechanism set at the avoided cost of energy.

We do not see a need or rationale for adopting a new or modified pricing methodology to differentiate pricing for storage paired QFs from other QFs. The Joint IOUs point out that storage resource charging from the grid may influence energy pricing depending on the timing of its charging versus discharging depending on the facility's location. We do not see merit in the Joint IOUs Comments because PURPA contracts are set at the avoided cost rate. The avoided cost price reflects the avoided cost of energy and capacity to the utility.

We agree with GPI's comments that co-located, and hybrid energy storage allows for shifting production to different times of day, enabling storage paired

⁷⁷ See Joint Parties Comments at 7.

with QF to inject energy at the point of interconnection where it is useful and more economically valuable due to time-differentiated compensation rates.

The Joint Parties state that a storage-paired QF will enable the dispatch of energy at times when it is most valuable to the grid and receive appropriate time-of-delivery compensation for that service. While we agree with the Joint Parties that there is a technical capability to put operational restrictions in place, we clarify that under D.20-05-006, we have set pricing structures considering the time of delivery. Thus, while the scheduling coordinator may consider shifting energy delivery to the period of need, the settlement between the purchasing utility and the Seller of energy would still be based on the PURPA contract.

In conclusion, the New QF SOC for storage paired with small production facilities charging solely from energy resources shall rely on the current pricing mechanism set at the avoided cost of energy.

4. Conclusion

With this decision, we modify the New QF SOC to clarify that storage-paired QFs are eligible for the New QF SOC and authorize specified modifications to the New QF SOC. These modifications are based on the foundational principle in the New QF SOC that any small power production facility must self-certify or receive FERC certification as a QF before the term begins of a contract with the purchasing utility.

According to applicable law, the revisions to the New QF SOC adopted here will allow storage-paired QFs charging solely from eligible energy resources to participate in our primary program implementing PURPA. We require each of the three IOUs to work together to revise the New QF SOC as directed in this decision, make it substantially similar across all three IOUs, and submit it via a Tier 1 advice letter each within 15 days of issuance of this decision.

The decision enables facilities with greater than 20 MW of nameplate capacity to participate in the PURPA program, as long as the generator paired with storage is a QF under federal law and limits the net power production capacity at the point of interconnection to 20 MW. The decision does not adopt new definitions of hybrid and co-located storage-paired QFs and continues to apply descriptions of these resources adopted in D.20-06-031. The decision retains the pricing mechanism adopted in D.20-05-006.

The IOUs can modify the New QF SOC provisions to enter into a nonstandard contract with a storage-paired QF partially charging from the grid only as specified in this decision. The IOUs must submit the nonstandard contract via a Tier 2 Advice Letter for the CPUC approval. We limit the negotiations and modifications to the metering and scheduling provisions and allow the IOUs to eliminate Section 9.02 (Additional Covenants by Seller) and Section 9.04 (Indemnity).

We expect the IOUs subject to this order to promptly and fully comply without delay.

5. Comments on Proposed Decision

The proposed decision of Administrative Law Judge (ALJ) Manisha Lakhanpal in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3.

~~Comments were filed on _____, and~~ [GPI, CESA and PG&E concurrently and jointly filed separate opening comments with SCE on May 18, 2022. SCE filed reply comments](#) ~~were~~ [and SCE, PG&E, and SDG&E jointly filed reply comments](#) on ~~_____ by _____~~ [May 23, 2022.](#)

[We have reviewed all comments and replies and accordingly modified the proposed decision.](#)

SCE and PG&E comment that federal law restricts how non-primary fuel inputs may be used.⁷⁸ The comment proposes to clarify the *Luz* decision by including additional language from it and requests that the decision reflect the holding in *S. Cal. Edison v. FERC*, 195 F.3d 17 (D.C. Cir. 1999) ("*Laidlaw*").

We agree and have revised the decision to more clearly reflect federal law, including references to the Federal Power Act and clarifications that fuel use must be consistent with federal law.

SCE and PG&E's comment also proposes to allow an IOU and QF to negotiate for Energy Division approval in a Tier 2 advice letter New QF SOC provisions for all storage-paired QFs in order to account for variable energy resource forecasting.⁷⁹ SCE and PG&E assert that CAISO does not require variable energy forecast and assert that IOUs should be allowed to set forecasting term/conditions to support scheduling and settlement provisions of the contract.⁸⁰

We decline to adopt SCE's and PG&E's recommendation to modify New QF SOC to allow negotiations for variable energy forecasting provisions for storage-paired QFs. The current provisions of the New QF SOC allow the purchasing utility to assess a variable energy/ intermittent resource's scheduling and metering requirements. Solar and other variable energy sources already use the SOC that allows the purchasing utility to assess appropriate terms and data in the contract (i.e. Exhibit I – seller's forecasting requirements or Exhibit K – scheduling and delivery declaration). To the extent that CAISO rules do not require forecasting data from hybrid resources, the conditions set in the New QF

⁷⁸ SCE & PG&E Comments 2-4.

⁷⁹ SCE & PG&E Comments 8-9.

⁸⁰ *Id.*

SOC will supplement CAISO's rules. We also clarify that storage-paired QFs must comply with the New QF SOC terms. We decline to carve out different provisions for storage-paired QF's variable energy forecast from other QFs.

SCE & PG&E also propose to allow an IOU and QF to negotiate New QF SOC provisions for all storage-paired QFs relating to pricing treatment provisions which would be submitted for Energy Division approval in a Tier 2 advice letter.⁸¹ Their comments state that "multiple physical configurations... and their corresponding settlement and pricing treatments" are not appropriately differentiated.⁸² As an example, SCE & PG&E assert that a likely scenario might be that an IOU has to pay a QF for deemed delivered, curtailed, energy under the New QF SOC as well as energy then stored and eventually discharged from the QF - therefore the QF seller would receive double payment for the same energy.

We agree that PURPA does not require a utility to pay a QF twice for the same energy. If an IOU is the scheduling coordinator, economic dispatch down provisions apply and are calculated pursuant to Exhibit U of the New QF SOC. If there could be a scenario where a storage-paired QF could obtain a payment under the economic dispatch down provisions and also for that same energy being diverted to onsite storage and later delivered, that is not the Commission's intent. Rather than authorize individual negotiations for each storage-paired QF, we authorize the IOUs to submit provisions to add to Section 9.02 and Exhibit U of the revised New QF SOC submitted for Commission approval in a Tier 1 advice letter. These provisions shall prevent deemed delivered energy payments

⁸¹ SCE & PG&E Comments 9-10.

⁸² Id.

for energy that is later delivered by a storage-paired QF when an IOU is the scheduling coordinator, to ensure that energy payments are only made once at avoided cost as required by PURPA. These provisions apply to all storage-paired QFs.

Aside from the specific suggestions above, SCE & PG&E also comment that the proposed decision errs in limiting the provisions that may be negotiated, instead suggesting that all terms in the SOC be negotiable, on a case-by-case basis, and for all storage-paired QFs, not just grid-charging QFs. SCE and PG&E oppose the proposed decision's limits to modify New QF SOC provisions for non-grid charging QFs (e.g., no additional provisions) and grid charging QFs (e.g., limited to metering and scheduling provisions, as well as modifying or excluding Sections 9.02(j) and Section 9.04(i)). SCE and PG&E contend that a storage-paired QF capable of charging from the grid may self-certify that it will not charge from the grid and without adequate terms and conditions in the New QF SOC to monitor the actual charging of the storage enhancement to the QF, there would be no effective way to monitor or challenge the certification of the QF at FERC.⁸³

As SCE and PG&E agree, FERC determines "whether a facility meets the eligibility requirements to be a QF".⁸⁴ Certifying as a QF at FERC is the first step to entering a PURPA contract and under the New QF SOC, a seller is required "to take all necessary steps" to maintain QF status throughout the term of a contract.⁸⁵ Parties can protest at FERC if they disagree with information filed at

⁸³ SCE & PG&E Comments at 5.

⁸⁴ SCE & PG&E Comments at 2.

⁸⁵ New QF SOC Section 3.17(c). Additionally, qualifying small power production facility sellers under the SOC must provide calculations and verifiable supporting data demonstrating the facilities compliance with federal QF regulations periodically, pursuant to Section 3.17(b).

FERC, but we disagree with the comments of SCE and PG&E that this decision would affect the ability to monitor or challenge the certification of a QF at FERC.

The New QF SOC was adopted by the CPUC as a standardized contract to streamline the PURPA implementation process and to ensure QFs are not excluded from participation in the program. Having a SOC reduces disputes about contract terms and reduces disputes that come to the Commission on the implementation of PURPA. As well, a SOC reduces transaction costs and resources for both QFs and the IOUs, who otherwise would need to expend efforts to negotiate project specific language. Although as discussed in Section 3.3 above, we find that only grid-charging storage QFs would be so potentially different from other QFs as to expressly need case-by-case adjustment to certain terms of the Revised New QF SOC. We do not find that storage-paired QFs charging exclusively from onsite renewable sources to require non-standard contract terms.

Additionally, PG&E proposes a “backstop” procedure to alleviate a utility’s obligation to enter into a QF SOC with a paired storage facility where the QF and utility are unable to reach agreement on terms for the QF SOC. Under PG&E’s proposed backstop, a utility would be relieved of its obligation to enter into the New QF SOC for paired storage facilities if a QF is unwilling to execute a New QF SOC with terms that the utility proposes and then submits to the Commission’s Energy Division by a Tier 2 advice letter and the Commission staff approve.

In its reply comments, SCE recommends that the CPUC reject PG&E’s recommendation to create a new process for parties to follow if they cannot reach agreement on a New QF SOC.

The Commission declines to adopt PG&E's backstop or to allow the negotiation of terms for the QF SOC other than as specified in this decision. This decision does not allow the IOUs to negotiate contract terms, other than the limited topics discussed herein, therefore there should not be a need for any backstop procedure once best efforts are used to reach agreement on necessary terms.

Furthermore, the Commission is mindful that a utility has a mandatory purchase obligation under federal law.⁸⁶ Whether a contract exists or not is not an exemption to a utility's mandatory purchase obligation because a utility may have a legally-enforceable obligation to purchase from a QF.⁸⁷ A QF may petition the Commission when agreement on terms is delayed.⁸⁸ Not only would PG&E's proposal impermissibly make a utility's actions determinative rather than a QFs in determining whether there is an obligation to purchase, the proposal would violate federal law by allowing Commission staff to alleviate the must-purchase obligation for failure to agree to contract terms. Under federal law, the idea of a legally-enforceable obligation prevents a utility from avoiding its PURPA obligations by refusing or delaying the signing of a contract.⁸⁹ If a QF

⁸⁶ 16 U.S.C. § 824a-3(a)(2).

⁸⁷ See MTSUN, LLC v. Montana Dept. of Pub. Serv. Reg., 472 P.3d 1154, 1158–59 (Mont. 2020) (Explaining that FERC “has established that a QF can sell power to a utility via a LEO, rather than under a contract. 18 C.F.R. § 292.304(d)(2); see Midwest Renewable Energy Projects, LLC, 116 F.E.R.C ¶ 61017, 61073 (July 7, 2006) (holding “[t]hat Congress used the term ‘contract or obligation’ in drafting section 210(m)(6) [16 U.S.C. § 824a-3(m)(6)] suggests that Congress intended that the Commission continue to protect both contracts and obligations that had not yet ripened into contracts but were ‘in effect or pending approval’”).

⁸⁸ MTSUN LLC v. Montana Dept. of Pub. Serv. Reg., at 1159 (“the establishment of a LEO turns on the QF's commitment, and *not* the utility's actions, and when a QF commits itself to sell to an electric utility, it also commits the electric utility to buy from the QF”) (cleaned up); see also Cedar Creek Wind, 137 FERC at 61024.

⁸⁹ Cedar Creek Wind, 137 FERC at 61024.

commits itself to sell to an electric utility, it “also commits the electric utility to buy from the QF.”⁹⁰ The Commission has adopted the New QF SOC to decrease disputes and litigation and implement PURPA in accordance with federal law. We decline to adopt this backstop and share the intent and expectation of PG&E that parties will be able to successfully negotiate the few terms this decision authorizes to be negotiated in OP 5.

GPI asks that the Commission “clarify that QF paired storage charging from the grid may participate in open market or contract procurement offers for which it would otherwise be eligible if not associated with a QF SOC, as long as such arrangements do not conflict with the QF SOC.”⁹¹ The comments ask the Commission to help avoid confusion and affirm that in addition to negotiated QF SOC, grid-charging storage paired QFs may enter into agreements eligible for if not associated with a QF SOC.⁹²

A storage facility may charge from the grid and sell power through a purchase agreement, participate in the CAISO marketplace, or make contract procurement offers. However, if a storage-paired QF obtains a PURPA contract, then that facility is subject to the terms and benefits of participating in PURPA, including limitations on fuel source and facility location and size.⁹³ Only if consistent with federal law may a storage-paired QF that sells energy and/or capacity to an IOU under the rights and obligations of PURPA also be able to participate in other procurement opportunities for storage resources. We

⁹⁰ FLS Energy, Inc., 157 F.E.R.C. ¶ 61211, 61730-31 (Dec. 15, 2016).

⁹¹ GPI Comments on PD at 2.

⁹² Id at 3.

⁹³ 18 C.F.R. 292.203.

[reiterate that FERC makes determinations about QF status and suggest that the clarification sought must come from FERC, not the CPUC.](#)

6. Assignment of Proceeding

Commissioner Clifford Rechtschaffen is the assigned Commissioner and Manisha Lakhanpal is the assigned ALJ in this proceeding.

Findings of Fact

1. Commission decision D.20-05-006 established the New QF SOC.
2. In D.20-05-006, we did not consider the applicability of the New QF SOC for storage-paired QFs.
3. FERC has issued recent decisions clarifying its position on storage-paired QF.
4. FERC's recent decisions, along with party comments, create a sufficient record for us to reach a decision on the issue of storage paired QF.
5. QFs with storage have existed since 1984.
6. Terms in the New QF SOC provide that a Seller must demonstrate that it is a QF.
7. Cal Advocates state that prohibiting grid charging may not be technically or practically feasible for storage-paired QFs.
8. Joint Parties state that PURPA is an essential policy instrument for ensuring the cost-effective future development of smaller renewable energy and storage projects needed as part of an increasingly more distributed, low carbon, and resilient electric system.
9. Storage paired facilities are increasingly common.
10. The Joint Parties support the language initially proposed by the IOUs in Section 9.02(j) and Section 9.04(i) for storage-paired QFs charging exclusively from the onsite eligible generation.

11. The Joint IOUs ~~proposes~~[propose](#) to submit a Tier 2 Advice Letter in instances where it allows parties to achieve a PURPA power purchase agreement that appropriately addresses and negotiates the contractual issues raised by a partially-grid charged energy storage system.

12. The eligible renewable resources language in Section 9.03 of the SOC is about the RPS program.

13. Not every PURPA contract is an RPS contract.

14. In a 2011 order, FERC terminated the IOUs' PURPA must-take requirement to purchase electric energy and capacity from QFs with net capacity above 20 MW.

15. FERC has granted facilities with a gross capacity higher than the maximum net power production capacity allowable under PURPA that physically limit the amount of energy the facility may provide to the grid not to exceed the maximum net power production capacity allowable QF status.

16. FERC decides how the capacity size of a QF is measured.

17. Resource Adequacy proceeding and CAISO have defined hybrid and co-located resources for market participation and operationalization.

18. The New QF SOC is not based on the technology of the resource, and the purchasing utility pays the avoided cost of energy [and capacity](#).

19. The use of the avoided cost pricing determined in D.20-05-006 reflects the avoided cost of energy and capacity to the utility.

20. The avoided cost pricing determined in D.20-05-006 considers the time of delivery.

[21. Deemed delivered energy payments for electricity generated by a QF that is curtailed and stored, and payment for that electricity when it is later](#)

[discharged from the storage device, would constitute paying twice for the same energy.](#)

Conclusions of Law

1. FERC has exclusive jurisdiction over QF status determinations.
2. Code of Federal Regulations Title 18 Section 292.204 requires that the primary energy source of a small power production facility must be biomass, waste, renewable resources, geothermal resources, or any combination thereof and that the power production capacity of a QF cannot exceed 80 MW.
3. PURPA does not explicitly state that a storage facility can qualify for QF status; however, as FERC laid out in *Luz*, facilities that include energy storage technology may be QFs.
4. FERC confirms that storage paired facilities may be a QF in the Broadview Rehearing Order and Gallatin Power Order.
5. FERC's consideration of Broadview Solar and Gallatin Power matters clarified the QF status of hybrid and co-located energy storage under federal law.
6. FERC's Broadview Rehearing Order and Gallatin Power Order state that a facility that limits the net power production capacity at the point of interconnection to the mandatory purchase obligation may be a QF.
7. The New QF SOC should be available to all QFs, as determined under federal law, and this includes small power production facilities where the primary energy source of the facility is biomass, waste, renewable resources, geothermal resources, or any combination thereof, and 75 percent or more of the total energy input must be from these sources [and such uses are consistent with those enumerated in section 3\(17\)\(B\) of the Federal Power Act.](#)
8. For storage-paired QFs that do not charge from the grid, it is reasonable for the IOUs to modify the New QF SOC adopted in D.20-05-006 by adding

additional Section 9.02(j) and Section 9.04(i), as proposed by the Joint IOUs and submit the updated New QF SOC language for CPUC approval via a Tier 1 advice letter.

9. It is not reasonable to prohibit QFs from charging from the grid if FERC allows for a QF to charge from the grid.

10. RPS program language does not control the PURPA contract language, which is about ensuring compliance with PURPA, a federal law for the sale of wholesale power.

11. For storage-paired QFs charging partially from the grid, it is reasonable to authorize the IOUs to enter into bilateral agreements to negotiate and modify the terms of the New QF SOC regarding metering and scheduling.

12. The IOU entering the modified contract with storage-paired QFs charging partially from the grid should submit the revised New QF SOC language for CPUC approval via a Tier 2 Advice Letter.

13. FERC determines a QF's power production capacity.

14. As long as a small production facility that includes storage is a QF under federal law and limits the net power production capacity at the point of interconnection to 20 MW, it should be eligible to enter into a New QF SOC.

15. GPI's proposal to allow 105 percent of the cap to inject power at the point of interconnection is not reasonable as it would exceed the purchase obligation limit of 20 MW.

16. It is reasonable to define hybrid and co-located resources in the resource adequacy proceeding and continue to apply the definitions adopted in D.20-06-031.

17. There is no reasonable basis for this decision to change the existing avoided cost pricing adopted for the New QF SOC in D. 20-05-006.

18. Because PURPA requires utilities to pay the avoided cost from procuring electricity from a Qualifying Facility, it is reasonable to allow revision to the New QF SOC to include terms and conditions in Exhibit U (Economic Dispatch Down) and Section 9.02 when an IOU is the scheduling coordinator, to enable the purchasing utility to ensure that a storage-paired QF is not being paid twice for the same energy.

19. For all storage-paired QFs, it is reasonable for the IOUs to modify the New QF SOC adopted in D.20-05-006 to include terms and conditions in Exhibit U (Economic Dispatch Down) and Section 9.02(i), when the utility is the scheduling coordinator, to ensure that a storage-paired QF is not being paid twice for the same energy, and submit the updated New QF SOC language for CPUC approval via a Tier 1 advice letter.

O R D E R

IT IS ORDERED that:

1. Under California's implementation of the Public Utility Regulatory Policies Act of 1978 (PURPA), Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall make the New Qualifying Facilities Standard Offer Contract available to all PURPA Qualifying Facilities (QF) of 20 MW or less, as well as QFs that include storage in hybrid and co-located configurations.

2. The New Qualifying Facilities Standard Offer Contract, adopted in Decision 20-05-006, is modified to add the following provisions applicable to energy storage-paired Qualifying Facilities charging exclusively from ~~the~~ eligible onsite energy resources:

- Section 9.02(j): Throughout the Term, Seller shall not cause any energy from the Transmission Provider's electrical

system or the CAISO Controlled Grid to be stored by the Project or any hybrid or co-located storage facility associated with the Project.

- Section 9.04(i): Seller shall defend, save harmless, and indemnify Buyer against any costs or charges, including any CAISO Charges, associated with withdrawals of energy from the Transmission Provider's electrical system or the CAISO Controlled Grid to be stored by the Project or any hybrid or co-located storage facility associated with the Project.

3. The New Qualifying Facilities Standard Offer Contract, adopted in Decision 20-05-006, shall be modified for energy storage-paired Qualifying Facilities to revise Section 9.02 and Exhibit U (Economic Dispatch Down) to include language necessary when an IOU is the scheduling coordinator, to prevent deemed delivered energy payments for energy that is later delivered by a storage-paired QF to ensure that energy payments are only made once at avoided cost and no double-payments occur.

4. ~~3.~~ Each utility subject to this decision shall file a Tier 1 Advice Letter within 15 days of this decision with their New Qualifying Facilities Standard Offer Contract with the provisions required in paragraphs 2 and 3 above, and include a redline version comparing the new contract with the superseded prior contract.

5. ~~4.~~ Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company are authorized to modify the terms to eliminate or revise Section 9.02 (Additional Covenants by Seller) and Section 9.04 (Indemnity), and modify provisions related to metering and scheduling in the New Qualifying Facilities Standard Offer ~~Contract~~Contracts with ~~grid charging~~energy storage-paired Qualifying Facilities that may partially

[charge from the grid](#) and submit these modified ~~provisions~~[contracts](#) on a case by case basis via a Tier 2 Advice Letter for the Commission's approval.

6. ~~5.~~ Except for the modifications authorized in this decision, the provisions of the New Qualifying Facilities Standard Offer Contract adopted in Decision 20-05-006 shall remain unchanged and available to Qualifying Facilities of 20 megawatts or less.

7. ~~6.~~ This proceeding remains open to consider whether any further action is required to comply with the Public Utility Regulatory Policies Act of 1978, such as to comply with any changes in federal regulations.

This order is effective today.

Dated _____, at San Francisco, California.

ATTACHMENT 1

ATTACHMENT 2

ATTACHMENT 3

Document comparison by Workshare Compare on Wednesday, June 1, 2022
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Document 1 ID	file:///C:/Users/nd3/OneDrive - The CPUC/CPUC Work/R1807017 Lakhanpal PD (rcvd.2022-04-11)/Workshare ORIGINAL R1807017 Lakhanpal PD.docx
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